



Attorney Docket No. 0756-2412

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:) Group Art Unit: 3742
Shunpei YAMAZAKI) Examiner: S. Fuqua
Serial No. 10/021,708) <u>CERTIFICATE OF MAILING</u>
Filed: December 19, 2001) I hereby certify that this correspondence is
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) Alexandria, VA 22313-1450, on
) <u>2-7-05</u>
) <u>Adrian M. Stampen</u>

RESPONSE

Honorable Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Official Action mailed October 5, 2004, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to February 5, 2005. Accordingly, the Applicant respectfully submits that this response is being timely filed.

Claims 25-200 are pending in the present application, of which claims 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53 and 55 are independent. Claims 57-61, 63-70, 72-79, 81-88, 90-97, 99-106, 108-115, 117-124, 126-133, 135-142, 144-151, 153-160, 162-169, 171-178, 180-187, 189-196 and 198-200 have been withdrawn from consideration by the Examiner. Accordingly, claims 25-56, 62, 71, 80, 89, 98, 107, 116, 125, 134, 143, 152, 161, 170, 179, 188 and 197 are currently elected, of which claims 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53 and 55 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action rejects claims 25-56, 62, 71, 80, 89, 98, 107, 116, 125, 134, 143, 152, 161, 170, 179, 188 and 197 as obvious based on the combination of U.S. Patent No. 6,594,446 to Camm et al. and U.S. Patent No. 5,219,786 to Noguchi. The Applicant respectfully traverses the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims.

Independent claims 25, 27, 31, 33, 35, 39, 41, 43, 47, 49, 51 and 55 recite introduction of a heated gas into a reaction tube. The Official Action asserts that "Camm et al discloses ... supplying a heated gas ... into a reaction tube (48)" (page 2, Paper No. 20040922). However, the Applicants find no such teaching or suggestion in

Camm. Therefore, Camm does not teach or suggest at least the above-referenced features of the present invention.

Noguchi does not cure the above-referenced deficiencies in Camm. Noguchi is relied upon to allegedly teach "a halogen light as a light source" (page 2, Paper No. 20040922). Therefore, Camm and Noguchi, either alone or in combination, do not teach or suggest introduction of a heated gas into a reaction tube.

Independent claims 29, 31, 37, 39, 45, 47, 53 and 55 recite heating by a pulsed light in a first stage. The Official Action concedes that "Camm et al does not disclose pulsing a light/lamp source during the first stage of heating" (page 2, Paper No. 20040922). The Official Action asserts that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included this feature during the first stage as a means to preheat the substrate just as Camm et al has included this pulsing action during the second heating stage" (Id.). The Applicant respectfully disagrees and traverses the above assertions. The Official Action does not provide any support from the references themselves or from the knowledge available to one of ordinary skill in the art at the time of the invention to support the assertion. Specifically, the Official Action has not shown why it would have been obvious to add or move the "pulsing action" of the second heating stage to the first stage as a means to preheat the substrate. The test for obviousness is not whether Camm could have been modified as asserted in the Official Action, but rather whether Camm should have been. Noguchi does not cure the above-referenced deficiencies in Camm. As noted above,

Noguchi is relied upon to allegedly teach "a halogen light as a light source" (page 2, Paper No. 20040922). Noguchi does not show why it would have been obvious to add or move the "pulsing action" of the second heating stage of Camm to the first stage as a means to preheat the substrate. Therefore, Camm and Noguchi, either alone or in combination, do not teach or suggest heating by a pulsed light in a first stage.

Independent claims 29, 31, 37, 39, 45, 47, 53 and 55 recite a pulse form with a cycle of a second or shorter in the first stage and a pulse form with a cycle of one


second or longer in the second stage. The Official Action is silent as to the above-referenced features of the present invention. The Applicant respectfully submits that Camm and Noguchi, either alone or in combination, do not teach or suggest a pulse form with a cycle of a second or shorter in the first stage and a pulse form with a cycle of one second or longer in the second stage.

Independent claims 33, 35, 37, 39, 49, 51, 53 and 55 recite reduced pressure. The Official Action is silent as to the above-referenced feature of the present invention. The Applicant respectfully submits that Camm and Noguchi, either alone or in combination, do not teach or suggest reduced pressure.

Since Camm and Noguchi do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,



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